Core Elements *for* AFIX Training and Implementation

April 2002
www.cdc.gov/nip/afix

CDC
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Department of Health and Human Services

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Thank you.

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Introduction to Core Elements For AFIX Training and Implementation

Over the past decade there have been many changes with immunization activities including a shift toward the private sector for vaccine administration. In 2001, the Centers for Disease Control and Prevention (CDC) reported that a majority of children in the United States received at least one-childhood vaccination in a private healthcare setting. Programs such as Vaccines for Children (VFC), the State Children Health Insurance Program (SCHIP), and the impact of the managed care industry have led to the shift of immunization delivery from public clinics to private providers.

A subcommittee of the Clinic Provider Assessment Work Group (CPAWG) developed this document and the CDC AFIX committee recommends these core elements be used as guidelines when providing AFIX education and training in any health care setting, whether public or private. The CDC Task Force on Community Preventive Services (CPS) has endorsed the AFIX (Assessment, Feedback, Incentive, and eXchange) methodology as an effective quality improvement activity to improve immunization coverage levels. With this endorsement, CDC convened a work group consisting of local, state, and federal participants. CPAWG develops an agenda of priority activities to focus on annually. One activity that the group determined to be a priority was development of guidelines to ensure AFIX activities are conducted in a standardized fashion. The use of these core elements will assist any public or private practice that implements this quality assurance tool to improve their immunization delivery, thus resulting in increased immunization coverage levels.

AFIX as a quality assurance tool consists of assessing the provider's vaccination coverage levels, feeding back that information along with recommending strategies for improvement, providing incentives to the provider to improve vaccination levels, and exchanging information among the providers within the community about performance and best-practices. This quality assurance strategy is a proven and reliable tool for improving vaccination coverage levels in provider offices.

For several years, state and local immunization programs have been conducting AFIX-type visits in public health clinics. Since private providers vaccinate approximately 80% of children in the United States, state and local immunization programs are strongly encouraged to share their AFIX services with private providers. These visits may be held in conjunction with programmatic VFC office visits.

To ensure proper use of the core elements, training sessions to conduct AFIX visits are essential. The core elements will provide guidance in:

- Training key staff to conduct AFIX visits
- Creating AFIX process protocols
- Obtaining continuing education credits for professionals who complete training

This document is intended to be used by individuals and immunization programs that plan to utilize the AFIX methodology. Individual site users will find this methodology to be flexible for their specific needs, while statewide programs will be able to use these same concepts in their specific settings. This methodology is a strategy that will give public and private immunization providers a coverage level for their childhood immunizations. The use of AFIX can change practice behaviors and outcomes in any health care setting.

Acknowledgements

The development of this document was made possible by the hard work and dedication of the following individuals and their organizations:

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Assessment ("A")

The "A" in AFIX stands for *assessment* of immunization coverage levels and immunization delivery patterns at the practice level. The Advisory Committee on Immunization Practices (ACIP) recommends the regular assessment of vaccination rates for both public and private providers.

I. METHODOLOGY

A. Choose Assessment Method
Decide which assessment method to use by matching the strengths, weaknesses, and diagnostic capabilities of the method to the practice. It is important that any method you choose includes the most current ACIP immunization recommendations. It is advisable to standardize your approach throughout your state or project area. Although some programs may develop their own assessment methods to analyze data there are assessment programs available from the CDC which include:

1. Classic CASA
2. Mini CASA
3. Hybrid CASA

B. Determine Assessment Parameters
Define appropriate assessment parameters such as:

1. Up to date (i.e., 4:3:1, 4:3:1:3:3:1) at a specific age
2. Define Active Patient and use consistently in your project
3. Age range to be assessed
4. Sample size based on requirements of the methodology
5. Consider counting valid doses only
6. Use most current ACIP immunization schedule as guidelines. (Refer to ***http://www.cdc.gov/nip/acip*** for current schedule and recommendations)

C. Identify Data Fields
Identify data fields as determined by your project to be collected during assessments. Projects may choose additional fields in CASA such as:

1. Has had chicken pox
2. VFC screening documentation
3. WIC Enrollment
4. Medicaid Enrollment
5. Head Start

D. Choose Data Collection Method
Choose the method of data collection that will be used during the provider site visit. Options include:

1. Laptop computer
2. Paper and pencil
3. Transfer of Registry Data

E. Supplies
The supplies for staff to take to an AFIX provider site visit may include:

1. Computer and supplies or extraction forms
2. Reference sheets
3. Post it notes
4. Pens/pencils
5. Calculator

II. PREPARATION FOR VISIT

A. Provider Selection
Identify providers that your program would like to target for "AFIX" activities. Provider selection may be based on a variety of variables. Some of the strategies for choosing providers are:

1. Identify current immunization partners (coalitions, state AAP chapter…)
   a. Ask them to participate in your program
   b. Ask them to help you recruit providers
2. Recruit practices with the largest patient populations first
   a. Largest pediatric groups
   b. Pediatric groups before family practice groups
3. Recruit from all levels of practices
   a. Promote your program to physician groups

b. Contact office managers
c. Contact medical group administrators or quality assurance personnel

4. Use several sources for the development of your recruitment list
   a. Vaccines for Children (VFC) provider profiles
   b. Local medical society and professional associations (AAP, AAFP)
   c. Health plan provider lists
   d. Medical group provider lists
   e. Referrals from other providers
   f. Providers with poor immunization practices
   g. Geographic area of need

B. Scheduling

The approach you take for scheduling the site visit will set the tone for the visit itself.

1. Call the office manager and explain exactly what you will be doing, how long it will take, and what you will need when you get there. (Refer to **Appendix A** for examples of pre-assessment forms and letters from several state programs)
2. Identify a mutually convenient date and time for the assessment.
3. Arrange for a workspace out of the flow of traffic with a table, chairs, and an electrical outlet for the computer (if applicable).
4. Ask for a computer-generated list of patients in the identified age range and pre-select the sample, if possible.
5. Determine staffing requirements and length of time for audit based on sample size, file selection method, and workspace availability.
6. Confirm the date and time of the audit with a follow-up letter and/or phone call.
7. Confirm office address and directions-if unfamiliar with area.
8. Communicate when and how the assessment results will be reported back to the office.

C. Confidentiality

The confidentiality of a provider's patients is often an important issue for the provider.

1. Be prepared to discuss concerns providers have with the issue of confidentiality. Some may ask for documentation showing your auditors have the right to abstract information from their patients' medical record and that audits will maintain the confidentiality of the information. Others may ask about state or federal regulations such as HIPAA (Health Insurance Portability &Accountability Act). For more information on HIPAA refer to website *http://www.hcfa.gov/*
2. Address the issue of confidentiality with those conducting the audits. Have auditors sign an oath of confidentiality to be kept on file in your office.
3. Establish and follow procedures for distribution, handling and disposal of confidential information (Refer to **Appendix B** for state program examples of confidentiality statements).

III. THE VISIT

A. Make a Good Impression

There are a number of ways to make a good impression when making a provider site visit:

1. Be prompt; give the office a 15-30 minute time range for arrival
2. Smile and be friendly
3. Let everyone know who you are and what you are doing
4. Wear professional attire
5. Carry identification (business card and/or badge)
6. Provide immunization information and resources
7. Consider bringing food if resources allow

B. Chart Selection

Some of the methods for selecting the charts for review are (Refer to **Appendix C** for summary on how to select a random sample):

1. Select a random sample of records
   a. Pre-select the sample with computerized list
   b. Shelf selection
2. Identify active patients

C. Data Extraction

The following guidelines will assist you in developing a method of extracting data from the charts:

1. Review completely all sections of the first few charts to become familiar with the system in the office. If multiple extractors are used agreement must occur on how to interpret immunization issues.
2. Ask office staff for clarification of documentation procedures for immunizations
3. If documentation is inadequate do further follow up to verify doses were given. This may include further chart review or office staff consultation.
4. Note problems for office staff to correct and put records aside for review
5. Perform the quality assurance review, whereby spot checks are performed to assure data were correctly extracted.

D. Wrap Up—Leave a Good Impression

The way you end your visit is just as important as how you begin it. Improve your chances of gaining re-entry to a provider office by following these guidelines:

1. Offer to replace the records
2. Collect all materials
3. Leave the workspace tidy
4. Thank the staff for their hospitality
5. Avoid discussion of results until data can be appropriately analyzed

IV. ORGANIZE AND ANALYZE DATA

A. Select Reports and Feedback Methods

Determine what data to share with provider. For example, CASA reports and on-site observations that may be shared with providers may include:

1. Up to date status of the defined age group
2. Up to date status at critical age markers
3. Single antigen coverage levels
4. MMR prior to first birthday
5. List of children with incomplete immunizations for their age
6. Quality of documentation
7. Missed opportunities including failure to simultaneously administer all needed immunizations.

B. Prepare Reports

Some things to consider when preparing reports for providers:

1. Present data in user-friendly format (graphs, pie charts…)
2. Retain provider confidentiality when presenting data comparing providers to each other
3. Identify areas of strength
4. Identify areas for improvement

Feedback ("F")

The "F" in AFIX stands for *feedback*, the process of informing immunization providers about their performance in providing vaccines to a specifically defined population. It provides information on immunization coverage levels for a particular office or provider. Feedback provides a forum to discuss with the office how to improve its immunization delivery system and improve immunization coverage levels. The feedback process requires time, flexibility, creativity and knowledge of immunization recommendations and standards of practice. The feedback process is given in a sensitive, respectful manner that assures provider confidentiality. The person conducting the feedback session needs well-developed skills for dealing with people in a range of situations. ***Feedback is a two-way conversation. It encourages the application of knowledge, attitudes and practice improvement in the immunization delivery system. You must get input from the provider to find out what changes are reasonable for the practice to institute.***

I. PREPARING FOR FEEDBACK SESSION

A. Helpful Hints for the Feedback Session
Suggestions for designing your feedback session:

1. Schedule your feedback session at a mutually convenient time for the office and yourself if session is to occur separately from the assessment visit.
2. Determine presentation mode and needed equipment and/or materials: handouts, PowerPoint presentation, easel and flip chart, overhead and transparencies etc…
3. Use visual aids if possible for presenting data, especially key points
4. Be comfortable in presenting information—practice feedback session(s) in front of your office staff.
5. Bring resources to improve immunization delivery
    a. Immunization Record for Medical Charts
    b. Vaccine Information Statements (VIS)
    c. Most current ACIP schedule
    d. Vaccine oriented educational materials for provider and patient
6. If incorporating food at feedback session, coordinate with caterer, consider space, time available, clean up etc…

B. Develop Feedback Plan
Use the following as a guide for preparing your feedback session:

1. Who will be present for the feedback session?
    - Have at least one key decision maker present (office manager, provider, nurse or other staff).
2. Be aware of time limits and keep within the limit for the session
3. What information will you present in the session?
    a. Outline key points of assessment findings
        i. Coverage Level
        ii. Diagnostic Information
        iii. Observation of office practices
    b. Highlight office's strengths
    c. Identify areas for improvement
        i. Documentation
        ii. Missed opportunities
        iii. Reminder/Recall
        iv. Parent education
        v. Provider education
        vi. Vaccine handling and storage issues
        vii. Late starts
4. Brainstorm with Practice on improvement strategies that can be adopted
    a. Include "easy fixes"
    b. Target areas that provide the "Biggest bang for the buck"
    c. Be empathetic and supportive to office concerns

d. Outline and discuss follow up activities
e. Foster an environment of change in practice
f. Utilize Incentives and eXchange of Information during Feedback Session

II. METHODS OF CONDUCTING FEEDBACK SESSION

When and how will you present the feedback session? There is no one ideal method for feedback. Do what works best for your program.

A. Feedback conducted at a later scheduled date (after day of assessment)

Pros: Allows time for analysis and development of feedback plan.
Ensures key players are available to participate in feedback session.
Uses both verbal and written formats.

Cons: Time and Labor Intensive

Situations best suited to this feedback method: Large high priority practices

B. Feedback conducted on day of assessment

Pros: Immediate information provided back to office.
Staff interest in immunizations may be at highest level.

Cons: May not be able to get "key" players to attend.
Limited prep time for presentation. Lack of prep time may limit discussion on improving immunization practices.
Time constraints: If assessment runs long, time available for feedback is decreased.

Situations best suited to this feedback method: Difficult to reach providers who are unlikely to schedule a follow up feedback session. Small volume practices.

C. Written feedback report mailed to office after assessment as sole feedback method.

Pros: No additional time required by office staff.
Since feedback is not immediate allows for more thoughtful analysis of data.
Office has hard copy of findings—does not rely on memory of what went on in feedback meeting and or notes taken during meeting.

Cons: Information may never be read or shared with appropriate staff.
Limits incentives and exchange of information.
Difficult to develop working relationship with office.

Situations best suited to this feedback method: Limited project resources.
Repeat assessments in high performing office.

III. CONCLUDING A FEEDBACK SESSION

Before leaving the office, remember to:

- Thank the office for participation in program
- Leave office work area clean and neat
- Review key findings of assessment
- Review agreed upon follow up activities

IV. AFTER CONCLUSION OF FEEDBACK SESSION

Additional activities (Optional)

A. Written Follow up Report to Provider
Include the following items as appropriate in the written report to the provider:

1. Summary of results
2. Agreed upon short term goals
3. Clear and concise outline of follow up activities to be conducted and responsible party.

B. Conference call
Allows for follow up on progress of immunization activities.

Incentives ("I")

The "I" in AFIX stands for the *incentives* to motivate providers and practices to improve immunization coverage levels. The key to this part of the AFIX process is to provide effective motivational rewards for positive change and improvement in immunization services and rates. Incentives promote change and reward achievement.

Incentives can range from providing contact names and numbers for local, state and federal immunization resources to providing funding to send office staff to training at state or national immunization conferences.

The purpose is to motivate and encourage all staff to accept improving immunization coverage levels as "part of their job." Public recognition of positive changes, as well as acknowledging high performing practices, is encouraged. When considering the following examples of incentives, be aware that practice characteristics such as provider type, size and location will influence what incentives are effective, relevant, and genuinely motivating to the provider.

I. OFFICE /PRACTICE BASED INCENTIVES

Some examples of incentives used at the practice level include:

- Free immunization materials
- Educational in-services for staff
- On-going immunization updates
- Catered lunch/breakfast in-services for staff
- Grants to improve immunization delivery services using evidence-based strategies
- Scholarships to local, state and/or national immunization conferences
- Letters of Commendation

II. PUBLIC RECOGNITION

Some examples of incentives used at the public-level include:

- Certificates of Participation, Improvement and Collaboration
- Plaques
- Promotion of clinics/offices as "Immunization Champions" or Role Models
- Recognition of clinics/offices with significant improvement or high coverage levels at local or state conferences
- Celebration lunches for the winners within the grantee's service area
- Recognition of clinics and offices in feature articles in various state and local professional newsletters and journals

III. FUNDING AND PARTNERING FOR INCENTIVES

To fund some of the more involved and/or costly incentives, consider partnering with other agencies or organizations with similar goals. Explore non-traditional partners as well. If unable to provide financial support, seek support to promote AFIX. Potential funding sources include:

- Immunization coalitions
- State chapters of professional organizations (AAP, AAFP, ANA)
- Health maintenance organizations
- Pharmaceutical Manufacturers
- State Medical Societies

(Refer to **Appendix D** for examples and tips on partnering)

eXchange of Information ("X")

The "X" in AFIX stands for the exchange of information. The "X" can interact with both the Feedback ("F") and the Incentive ("I") components of AFIX. Information can be exchanged during feedback of assessment results to provider and staff as well as in many other settings where health professionals might meet, such as AAP chapter meetings, MCO, coalition or professional nursing meetings. The exchange of information section will include examples of efforts that have been successfully implemented in practices and clinics. Exchanging information should reinforce the strengths of practices (acknowledge what the practice is doing well), as well as make recommendations for changes in their immunization practices. This exchange of information can be applied to individual practices, professional organizations and health systems.

I. COMPARISON OF IMMUNIZATION COVERAGE LEVELS

A. National Levels and Goals
Comparing provider immunization coverage levels to national levels and goals gives providers a broad context for their immunization level and where they stand.

B. State Levels and Goals (if available)
State levels and goals can give a provider a picture of how his or her coverage levels compare to others in the state.

C. Provider Practice Levels
Public and private providers can be shown their progress in relation to other providers by using a blinded rank order (Refer to **Appendix E** for examples of how programs present comparison coverage levels). There are two things to keep in mind to maintain professional confidentiality if you choose to do this:

1. ***DO NOT*** identify specific practices without their permission
2. Do generalize rates for practices in geographic areas or by practice type

II. SUCCESSFUL PROCESSES/ SYSTEMS IMPLEMENTED BY OTHER PRACTICES

A. Mentoring or Testimony by an Immunization Champion
Using a local provider or immunization champion to speak with area providers is one method of educating providers. Local immunization staff may provide expertise as an immunization advocate and in identifying other immunization champions.

B. Evidence-Based Strategies
Another method of immunization coverage improvement is to show providers how implementing quality-assurance methods in other practices improved the coverage levels of those other providers. For examples of evidence based strategies go to the Task Force on Community Prevention Website at *http://www.thecommunityguide.org/home_f.html*.

C. Competition
Friendly competition can be used as a motivator for increasing immunization coverage levels. For example, this can be done between staff at a large practice or among clinics or offices within a larger health system. This may be effective in conjunction with incentives discussed in the prior section.

D. Share Success Stories
It is important that immunization programs and providers do not try to reinvent the wheel. There are numerous examples of success stories at the provider level. Projects need to communicate about what has worked for programs, and encourage providers to contact each other to do the same.

E. Share Experiences That Have Not Worked
It is equally important that states and providers share experiences that have not been successful to collectively address barriers. Remember that while some

strategies work well in a local area, strategies may not be universally successful.

III. IDEAS FOR REMOVING BARRIERS

A. Standard Vaccine Documentation

1. **Standard immunization record in chart**
   A standard immunization record in each client's chart is an efficient and accurate way to review a client's immunization status (Refer to **Appendix F** for examples of Vaccine administration records for medical charts).
2. **All doses documented on a single record in chart**
   Documenting all doses administered by current and previous providers on a single record in a client's chart is a standard for immunization practices. *The Standards for Pediatric Immunization Practices* was recommended by the National Vaccine Advisory Committee, approved by the United States Public Health Service and endorsed by the American Academy of Pediatrics in 1992.
3. **Legal Requirements**
   A Standard for Immunization Practices states that providers must use accurate and complete recording procedures. Providers are required by statute to record what vaccine was given, the date the vaccine was given (month, day, year), the name of the manufacturer of the vaccine, the lot number, the signature and title of the person who gave the vaccine, and the address where the vaccine was given. In addition, providers should record on the client's personal immunization record card what vaccine was given, the date the vaccine was given and the name of the provider. Additional state statutes may apply.

B. Assess Immunization Status at All Encounters
Another Standard of Immunization Practices states that providers should use all clinical encounters to screen and, when indicated, immunize clients.

C. Tracking, Reminder and Recall
Operating a tracking system that produces reminders of upcoming immunizations as well as recall notices for clients who are overdue is also a Standard of Immunization Practices. The tracking system may be automated or manual and may include but not limited to mailed or telephone messages.

IV. ENCOURAGING OWNERSHIP OF THIS INITIATIVE

A. Determine Who Makes Decisions
Determine who in the practice can authorize changes in protocol.

B. Changes In Immunization Practice Patterns Can Make Clinical Time More Efficient
Give examples of how improving immunization practice patterns will enable their practice to operate more efficiently.

C. Discuss Potential Changes
Encourage the decision-maker to explore what immunization activities the practice is willing to implement to improve coverage levels. Determine some changes that may improve assessment results.

D. Liability
Discuss potential liability situations related to immunizations such as failure to use the most current VIS statements.

E. Maintaining and Continuing Improvement
Discuss the option of periodic return visits for reassessment to measure the success of practice changes. Practices should be encouraged to set realistic improvement goals.

V. OFFER ADDITIONAL EDUCATION OPPORTUNITIES

A. CDC Conferences and Satellite Courses
Inform staff of dates and times of CDC conferences and satellite courses.

B. State/Regional/National Immunization Conferences
Inform staff of dates and times of other immunization conferences.

C. Inservices for Office Staff
Provide in-services for nursing and office staff on immunization topics.

D. Provide inservices for Medical Providers
Provide inservices for medical providers on immunization topics.

E. Consider offering CEUs for participation in AFIX visits

VI. RESOURCES

Develop a list of immunization resources for your providers. Following are some examples to include:

- Yourself
- Local/County Health Department
- State Immunization Program
- CDC "Hot Line"
- Immunization Coalitions in area
- Web Site addresses
- Vaccine Manufacturers

(Refer to Appendix G Additional Resources such as Websites and Telephone Numbers)

VII. FINAL ADVICE

Some final points to keep in mind:

- Be empathetic/supportive
- Encourage creativity
- Expect and accept mistakes
- Allow for candid opinions
- Offer positive feedback
- Offer appreciation for a job well done.

With all the components in place your program will be successful in private provider practices participating in your assessment process. As a result of using the AFIX process to its full extent, you will see an increase in properly immunized children. The process never ends and vigilance must be kept to achieve our goal:

Protect Children from Vaccine-Preventable Diseases

Appendix A

Examples of
Pre-Assessment Forms and Letters

Examples based on state program forms

Private Provider Initial Contact Form

Provider Name _____

Address _____

_____

Contact Person *(name and title)* _____

Phone # _____ Fax # _____

Number of Children Served _____ Number in Age Range _____

Patient Age Range in Practice _____

What kind of record keeping system is/are used? (Which contains immunization records?)

☐ Computer ☐ Medical Records ☐ Card File ☐ Other *(Specify)* _____

How can we access records?(computer printout, pulled files, etc...)

How are completed records reported?

☐ Immunization Cards
☐ Summary form
☐ Other (specify)

Immunization Screening Policy Used (ACIP, AAP...) How long have used this policy?

When is DTP #4 given?_____

When is MMR given? _____

IPV schedule _____

Varicella, PCV-7, Hep A given? _____

Type of insurance accepted: _____

Percentage Medicaid _____

How are Active/Non-Active patients defined?_____

Are they separate? _____

Best day/time to do audits? _____

Number of non-English speaking clients? _____

What Languages are Spoken?

How many staff ? (MD, RN, PA, MA, etc.)

Computer System? _____

Software: _____

Notes:

AFIX Application and Enrollment Profile

Thank you for your interest in AFIX and for your interest in improving immunization rates and practices in your clinic. Please fill out ***all fields*** *on both of these forms and submit them to X (fax: xxx-xxx-xxxx). You will need to* ***complete a separate Part B*** *for each clinic site in your practice. We will contact you shortly by phone to discuss the next steps in the AFIX process.*

Part A: General Practice Information

1. Name of Practice or Organization: _____
2. Are there multiple sites for this practice? ☐ Yes ☐ No
   If yes, please list each clinic or site name:
   1. _____
   2. _____
   3. _____
   4. _____
   5. _____
3. Does this practice or organization participate in the Immunization Registry?
   ☐ Yes ☐ No

   If yes, how often is immunization data submitted to the Immunization Registry?

   _____
4. By which method is this data submitted?
   ☐ Barcodes
   ☐ Electronic file transfer from practice billing system
   ☐ Electronic file transfer from medical records system
   ☐ Public clinic: automated data entry
5. Please describe general impressions of the Immunization Registry within your practice or organization:

   _____

   _____
6. Does this practice or organization participate in the Vaccines for Children (VFC) program?
   ☐ Yes ☐ No

For Office Use Only:		
Current	Future	Time Frame

Part B: Specific Clinic Site Location Information

Please fill out a separate Part B for each clinic or site location within your practice.

1. Clinic or site name: _____

2. Clinic Specialty: (*Check one)*
   ☐ Pediatrics ☐ Family Practice ☐ Both ☐ Neither/Other: _____

3. Clinic Type: (please check one)
   ☐ Private, non-FQHC ☐ Private, FQHC
   ☐ M/CHC ☐ County Health Department
   ☐ WIC site ☐ Other public agency
   ☐ Tribal agency ☐ Other: _____

4. **Clinic Contact Information:**
   Street Address: _____
   City/State: _____ Zip Code: _____
   County: _____
   Clinic Phone: _____ Clinic Fax: _____
   Clinic e-mail: _____ Clinic website: _____

5. **Clinic Practitioners:**
   Number of Pediatricians at this clinic: _____
   Number of Family Practitioners at this clinic: _____
   Number Nurse Practitioners at this clinic: _____
   Number Physician Assistants at this clinic: _____
   Number Nursing staff (RN, LPN, CNA, etc.): _____
   Number Office Staff at this clinic: _____

6. Approximate the number of children under 3 years old seen at this clinic: _____

—Please complete next page—

7. Who will be designated as the primary AFIX contact?

First Name: _____ Last Name: _____

Title: _____ E-mail: _____

Phone: _____ Fax: _____

Hours at this phone number (ex: M, W, F, 9am - 2:30pm): _____

8. Who is designated as the primary VFC contact?

First Name: _____ Last Name: _____

Title: _____ E-mail: _____

Phone: _____ Fax: _____

Hours at this phone number (ex: M, W, F, 9am - 2:30pm): _____

9. Who is the lead pediatrician or physician overseeing immunizations in this clinic?

First Name: _____ Last Name: _____

Title: _____ E-mail: _____

Phone: _____ Fax: _____

Hours at this phone number (ex: M, W, F, 9am - 2:30pm): _____

Authorizing signature of physician: _____

By authorizing this application, I confirm that this practice recognizes AFIX as a continuous improvement process geared toward immunization practices, and is in the best interest of our practice and our patients.

Thank you for completing these forms.

Please return to:

Thank you for your request to participate in an immunization record assessment, and for your interest in improving immunization rates and practices in your clinic. Please verify the information on this profile, make corrections as necessary, and sign the confirmation where indicated. Please fax the completed confirmation to. The immunization assessment office will mail a letter to your office that will confirm the scheduled dates for the chart review and the feedback meeting.

NAME OF PRACTICE: _____

DATE OF CHART REVIEW: _____

DATE OF FEEDBACK MEETING: _____

TIME OF FEEDBACK MEETING: _____

The primary contact for the immunization record assessment is:

Name: _____ Title: _____

Phone: _____ Fax: _____

E-mail: _____

Hours at this phone number (ex: M, W, F, 9am – 2:30pm): _____

This practice recognizes the X immunization record assessment as a continuous improvement process geared toward immunization practices that is in the best interest of our practice. By signing this confirmation, the practice 1) is agreeing to participate in the immunization record assessment, 2) grants X permission to review the immunization data for the provider in the X Childhood Immunization Registry, and 3) commits to the have medical staff in attendance at the feedback meeting on *Feedback Date* at *Feedback Time*. The list of patients with birth dates *Birth Date Age Range*, being generating by this practice, will be **faxed to X within the next five business days.**

Signature of primary contact person: _____

Provider ID: _____

The immunization assessment staff will conduct a chart review for immunization data and review the immunization data for the provider in the X. All information abstracted from the charts will be treated as confidential.

The immunization record assessment for "PracticeName" is supervised by XX Immunization Assessment Coordinator. XX can be contacted at XXX-XXXX or by e-mail at

(Date)

PROVIDER ADDRESS INFO

Dear CONTACT PERSON:

Thank you for your interest in participating in the Immunization Record Assessment. The chart review date is scheduled for *Date of Chart Review*. The list of patients with dates of birth from *Birth Date Age Range* has not yet been generated by your practice. When the list of children is generated, please call our office to let us know you have the list and then fax the list of children to the X Immunization Assessment office, attention XX at . *Name of Assessor*, a Department of Community Health Immunization Assessment Specialist, will arrive at your office at approximately *ARRIVAL TIME* and will be conducting the chart review for approximately 4 hours. During the chart review *Name of Assessor* will need a table or empty desk upon which she may place a lap top computer and a full-size keyboard; an electrical outlet is also required in an adequate space to review the charts (i.e., conference room, break room, empty desk, etc.). When we receive a faxed copy of your list of children, you will be instructed on which charts to pull before the assessor's arrival.

After the chart review, the immunization assessment staff will compare the immunization data in the X Childhood Immunization Registry with the data collected at the chart review. The results of this data review will be discussed at the feedback meeting.

The Assessment Feedback meeting is scheduled for *Feedback Date* at *Time of Feedback*. All clinical staff is to attend this 1-hour meeting. *Name of Presentor*, Immunization Assessment Specialist, will present this feedback meeting. The immunization coordinator from your local health department, the regional staff and the X immunization field representative are interested in increasing immunization levels for your practice, they will be invited to attend the feedback meeting.

If you have any questions concerning the methods used to assess your records or need to reschedule, please feel free to call me at . Otherwise, we look forward to seeing you on *Date of Chart Review.* Your continued partnership is critical to our efforts to ensure the health and well being of children in our state through the administration of age-appropriate immunizations.

Sincerely,

XXX, Immunization Assessment Coordinator
Communicable Disease and Immunization Division
Bureau of Epidemiology

cc: *IAP Coordinator*, *County* County Health Department
Field Rep, Immunization Field Representative

Appendix B

Examples of Confidentiality Information

Examples based on state program forms

DATA COLLECTION CONFIDENTIALITY AGREEMENT

Adult Assessment Feedback Incentive and Exchange Project

I_____will be providing data collection services in connection with the Department of Human Services (DHS) project shown above.

a) The assessment being conducted is being performed in consultation with the Centers for Disease Control and Prevention (CDC);

b) I will treat as confidential all information secured during the site visits, patient chart reviews, electronic data extraction or other information obtained in any project-related way during the period I am working on this project according to the proposed HIPAA guidelines;

c) I will conduct myself at all times in a manner that will obtain the respect and confidence of all individuals from whom data will be collected and I will not betray this confidence by divulging information obtained to anyone other than authorized representatives of DHS or CDC;

d) Data or information gained about clinics, staff, patients involved in this project will only be shared in aggregate form without identifying information, unless written consent is obtained from all parties involved;

e) My obligations under this agreement shall remain valid and in force beyond the term of this Agreement;

f) If I fail to comply with the terms listed in this agreement, I will immediately be dismissed from the project and any access to data and information related to the project.

_____

Site visit/abstractor signature Date

Confidentiality Statement for Review of Private Patient Information During VFC Site Reviews

During the VFC Site Review, the VFC Field Representative enters immunization information of a sample of your private and VFC-eligible patients into a laptop computer in order to obtain an overall evaluation of your immunization coverage rates. The data gained in this process allow VFC to offer tailored solutions to the problem of missed opportunities to vaccinate and under-vaccination.

Private patient immunization data, in addition to VFC-eligible patient data, is used to obtain more accurate results, for better feedback to VFC providers about ways to maximize immunization levels in their practices.

VFC will use these data solely for the purpose of statistical analysis. VFC's reports will not reflect any patient information obtained by VFC from a provider. To the extent permitted by law, VFC will only distribute information from site review assessments in aggregate form. VFC intends to use patient identifiers solely for the purpose of avoiding duplication of data entry.

The analysis of immunization data from both private and VFC-eligible patients is a critical component in providing an accurate evaluation of immunization rates within this state. Thank you for your cooperation. Please contact, , Provider Services Specialist, if you have any questions.

(Date)

Pursuant to Section *N* of the Health and Safety Code regarding immunization data gathered during the conduct of surveys or studies:

(insert law here)

Immunization data collected during the conduct of clinic assessments and/or special immunization studies shall be released as aggregate statistics only to maintain confidentiality. Assessed entities shall be provided individual immunization histories of their clients upon request and for the purpose of identifying persons who may be in need of immunizations.

Director of Health

Appendix C

Methods on How to
Select a Random Sample

Table 1. A Portion of a Table of Random Numbers

33276	7**099**7	79936	56865	05859	90106
03427	49626	69445	18663	72695	52180
92737	88974	33488	36320	17617	30**015**
85689	48237	52267	67689	93394	01511
08178	77233	13916	47564	81056	97735
51259	77452	16308	60756	92144	49442
60268	89368	19885	55322	44819	01188
949**04**	**3**1273	04146	18594	29852	71685
58586	23216	14513	83149	98736	23495
09998	42698	06691	76988	13602	51851
14346	09172	30163	90229	04734	59193
741**03**	**4**707**0**	**25**306	76468	26384	58151
242**00**	**1**3363	38**005**	94342	28728	35806
873**08**	**5**873**1**	**00**256	45834	15398	46557
07351	19731	92420	60952	61280	50001

IV. A MENU OF OPTIONS FOR SAMPLING PLANS

The clinic's choice of a sampling plan depends on the type of record keeping system already in place.

A. Census or Complete Enumeration

If a clinic has a computerized data system, it would be relatively easy to do a census or complete enumeration of the records in the system. Assessment becomes a simple matter of accessing the computer files, selecting all eligible 2 year olds, and counting the number of these children who are up-to-date on vaccinations at their second birthday and at earlier age markers. Similarly, if a clinic has fewer than 50 two year olds, the time spent doing a complete enumeration may not be much more than the time it would take to do a survey. In both clinics, sampling error would no longer be an issue—an advantage that a complete enumeration has over a sample survey. However, a census could still be subject to nonsampling error.

In other clinics, it would be difficult, time-consuming, and expensive to do a complete enumeration. A sample survey needs to be done. This involves deciding on a sampling procedure, calculating sample sizes, selecting the sample, and computing the appropriate estimates and the corresponding sampling error. Following are some options for the sampling procedure.

B. Simple Random Sampling

With simple random sampling (SRS), every possible sample of n children from a population of size N has the same chance of being chosen. Following are the steps to be taken when selecting a simple random sample.

Step 1. Label the children in the survey population from 1 to N.

Step 2. Take n random numbers between 1 and N. The selection must be done without replacement; i.e., if a number is the same as any one of the previous numbers selected, discard it and continue until n different numbers between 1 and N have been chosen. (Use either a table of random numbers like Table 1 or a computerized random number generator.)

Step 3. Select the children corresponding to the n numbers generated in step 2.

***** Example *****

Suppose that we need to select 10 records from a collection of 100 clinic records. We number the records in the sampling frame from 1 to 100. Then, using a table of random numbers such as in Table 1, we pick 10 random numbers. Because we want numbers between 1 and 100, we read off three digits at a time. Reading from left to right and from top to bottom, the first two numbers (332 and 767) are discarded because they are larger than 100. The next number, 099, is chosen. The second number selected is 034. All numbers read that fall between 1 and 100 are in boldface (Table 1). Note that 099 is selected twice, but we include it only once. The number 34 is also read twice but is included only once. Hence, the 10 numbers selected are 99, 34, 15, 81, 43, 25, 1, 5, 85, and 100. We then pull out the 1st, 5th, 15th, 25th, 34th, 43rd, 81st, 85th, 99th and the 100th records from our files.

***** End of Example *****

Conceptually, SRS is the simplest type of sampling plan. At the implementation stage, however, SRS may present some problems. In some clinics, it may be difficult to construct a list of all the N children before sampling and to train personnel to generate n random numbers. In these situations, systematic sampling may be easier to implement.

C. Systematic Sampling

Systematic sampling is easy to apply because it simply involves taking every k^{th} child after a random start. The following are steps to be taken when selecting a 1-in-k systematic sample.

Step 1. Divide the population size N by the required sample size n to get the sampling interval k,

$$k = N/n.$$

If k is not an integer, round it down to the nearest integer, i.e., truncate the number.

Step 2. Take a random number between 1 and k to determine the first child to be included in the sample.

Step 3. Add into the sample every k^{th} child after the random start in the preceding step.

***** Example *****

Suppose that we need a sample of 5 out of 28 records. Then k=28/5=5.6, not an integer, and hence we round it down to the nearest integer, 5. Using a table of random numbers, select a number between 1 and 5, say 2. The random start is 2, and the second record is selected first. Starting with the third record, count from 1 to 5 and pull the last record, i.e., the seventh record from the file is selected. Repeat the procedure until 5 records are selected or the end of the file is reached. Thus, with a random start of 2 and a sampling interval of 5, the 2nd, 7th, 12th, 17th, 22nd, and 27th records are selected. Note that because we rounded the sampling interval down to the nearest integer, we get a sample size of 6 instead of the intended size of 5. This process is illustrated in Table 2. Note that the 1-in-k systematic sampling essentially divides the population into groups of k (k=5 in our example) and one record is selected from each group. The random start fixes the position of the record selected within each group; in our example, every 2nd record in a group of 5. If the selection process got interrupted, it is helpful to know that the j^{th} selection is determined by the formula

$$j\text{th selection} = (\text{random start}) + (j-1)(\text{sampling interval}).$$

For example, the 3rd selection will be 2+(3-1)(5)=12 and the 6th selection will be 2+(6-1)*5=27.

***** End of Example *****

D. Cluster Sampling—aka Shelf Method

In certain practices, you may find that even systematic sampling is impractical. For example, consider a practice with no computerized database of patients. You are given the task of sampling records of 100 two year olds from a file room with 50 shelves filled with records for clients of all ages.

A practical alternative is to first sample "clusters" of records from the filing system and then sample individual records from each cluster.

Step 1. *sample clusters*
First divide the filing system into a relatively large number of groups. In our example, you might say that each half of a shelf represents a cluster, giving you 100 clusters total. Second select a sample of approximately 30 clusters. You can either select a simple random sample (using CASA's random number generator) or a systematic sample (for example picking a random start between 1 and 4 and then take every 4 cluster would give you 25 clusters).

Step 2. *estimate the total number of eligible children in the practice.*
Select one cluster; determine how many charts in that cluster meet your eligibility criteria; multiply that number by the total number of clusters. For example, you randomly select cluster 31 from the 100 total clusters and find that there are 12 eligible charts in that half shelf of records. Then your estimate of the total number of eligible in the practices would be (12 eligible charts per cluster * 100 clusters)= 1200 eligible charts.

Step 3. *select individual charts from each cluster.* First divide your total sample size by the number of clusters to determine how many charts to select from each cluster. For example if you want a sample of 100 charts, and in step 1 you drew a sample of 25 clusters, you would select 4 charts from each cluster. To select individual charts, you could simply start at the beginning of each cluster selected in step 1 and go through the charts one at a time until you have 4 charts that meet your eligibility criteria.

For the purpose of simplicity we will analyze this sample as though it were a simple random sample of 100 drawn from a population of 1200.

Table 2. A 1-in-5 Systematic Sampling from 28 Records Using a Random Start of 2

Record Number(position in the file)	Record to be selectedin the sample
1	
2	X
3	
4	
5	
6	
7	X
8	
9	
10	
11	
12	X
13	
14	
15	
16	
17	X
18	
19	
20	
21	
22	X
23	
24	
25	
26	
27	X
28	

Appendix D

Examples and Tips on Partnering

Partnering to Implement AFIX

AFIX has primarily been a health department initiated activity. However, a variety of partners could be involved in the various parts of the AFIX process. Please consider the following suggestions for partnering when implementing AFIX.

Assessment: This is often the most labor intensive part of AFIX and can provide opportunities to partner with a variety groups or organizations such as VFC programs, immunization coalitions, managed care organizations, insurers, local chapters of the AAP & AAFP, service clubs, and colleges and universities. These partners may assist by extracting data, pulling/re-filing charts, enlisting private practices to participate and preparing reports.

Feedback: Within the Feedback process, opportunities to partner are limited due to the sensitive and confidential nature of this part of the process. However, partners like immunization coalitions, managed care organizations, insurers, vaccine representatives, local chapters of the AAP & AAFP and service clubs may be able to assist by providing resources (food, space, cover reproduction costs for reports) to support the feedback session.

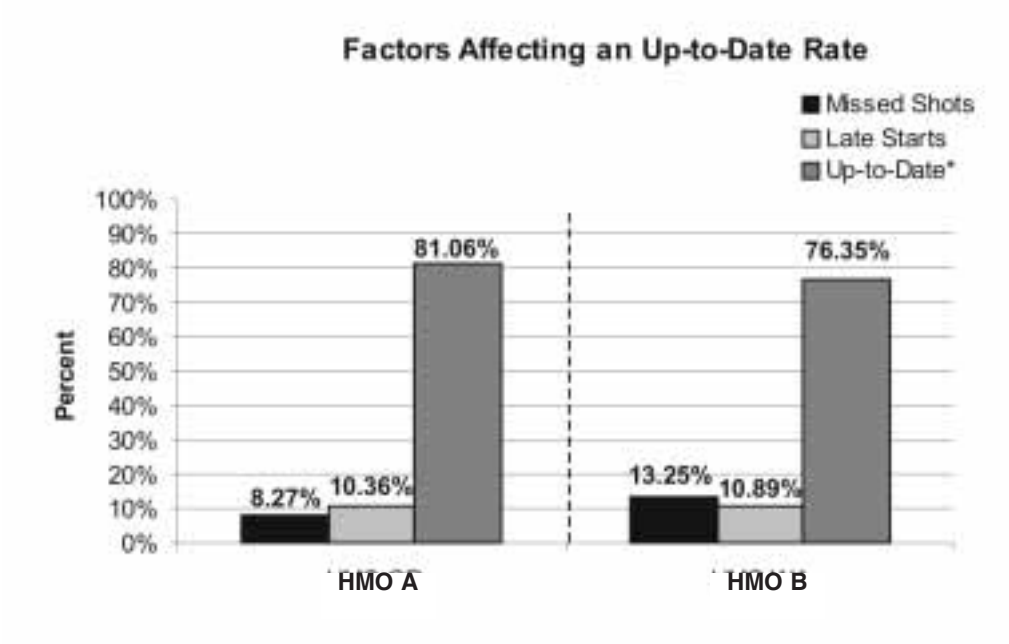
Incentives: Most AFIX programs have minimal resources to provide incentives. Therefore, partnering with other organizations to offer incentives is recommended. Please refer to the Incentive section for incentive ideas.

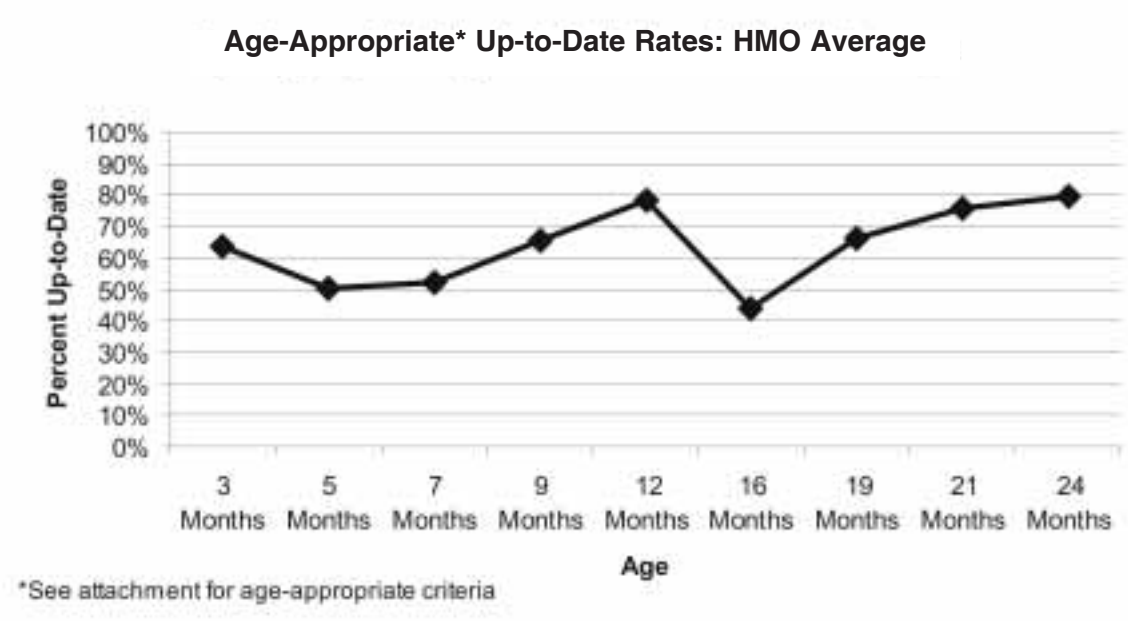
eXchange of Information: Partnering is useful during this part of AFIX. Identifying partners that are willing to reinforce the strengths and monitor the recommended changes of practices can lead to increased commitment by practices and sustain improvement in immunizations rates over time. Immunization coalitions, local AAP/AAFP chapters and insurers are good partners for this activity.

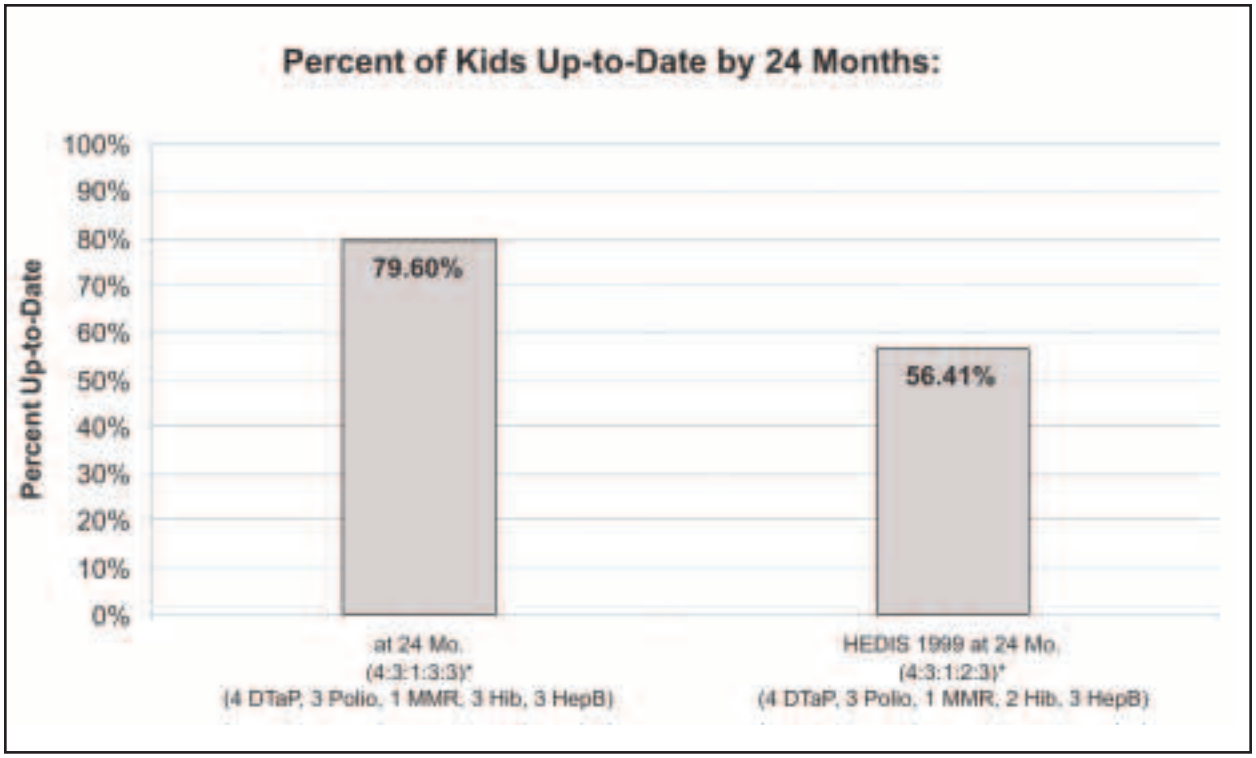
Appendix E

Graphical Representation of
Immunization Coverage Levels
Between Practices

Example based on state program graphics


Factors Affecting an Up-to-Date Rate
Missed Shots
Late Starts
Up-to-Date*
Percent
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
8.27%
10.36%
81.06%
13.25%
10.89%
76.35%
HMO A
HMO B


Age-Appropriate* Up-to-Date Rates: HMO Average
Percent Up-to-Date
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
3 Months
5 Months
7 Months
9 Months
12 Months
16 Months
19 Months
21 Months
24 Months
Age
*See attachment for age-appropriate criteria


Percent of Kids Up-to-Date by 24 Months:
Percent Up-to-Date
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
79.60%
56.41%
at 24 Mo.
(4:3:1:3:3)*
(4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HepB)
HEDIS 1999 at 24 Mo.
(4:3:1:2:3)*
(4 DTaP, 3 Polio, 1 MMR, 2 Hib, 3 HepB)

Appendix F

Examples of Vaccine Administration Records
For Medical Charts

Examples provided by
Immunization Action Coalition
http://www.immunize.org/

Vaccine Administration Record for Adults

Patient name:_____
Birthdate:_____
Clinic chart number:_____

Before administering any vaccines, give the patient copies of all pertinent Vaccine Information Statements (VISs) and make sure he/she understands the risks and benefits of the vaccine(s). Give the patient an updated immunization record card whenever you administer vaccine.

Vaccine and route	Date given	Site given (RA, LA, RT, LT)	Vaccine lot number	Vaccine manufacturer	VIS date*	Signature or initials of vaccine administrator	Comments
Tetanus/diphtheria - 1 (IM)							
Tetanus/diphtheria - 2 (IM)							
Tetanus/diphtheria - 3 (IM)							
Td booster (IM)							
Td booster (IM)							
Td booster (IM)							
Td booster (IM)							
Hepatitis B - 1 ____mcg (IM)							
Hepatitis B - 2 ____mcg (IM)							
Hepatitis B - 3 ____mcg (IM)							
Hepatitis A - 1 (IM)							
Hepatitis A - 2 (IM)							
MMR - 1 (SQ)							
MMR - 2 (SQ)							
Varicella -1 (SQ)							
Varicella - 2 (SQ)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Influenza (IM)							
Pneum poly (PPV23) (IM•SQ)							
Other†							
Other†							
Other†							
Other†							

* A date is printed at the end of each Vaccine Information Statement (VIS). Record this date. According to federal law, VISs must be given to patients before administering each dose of Td, MMR, varicella, or hepatitis B vaccine.

† Meningococcal and/or Lyme disease vaccines are recommended for certain high-risk patients. Some high-risk patients may need a one-time revaccination with pneumococcal polysaccharide vaccine (PPV23).

Item #P3023 (7/03)

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Vaccine Administration Record for Children and Teens

Patient name: _____

Birthdate: _____

Vaccine administrator: Make sure you give the parent/guardian all appropriate Vaccine Information Statements (VIS) and an updated shot record at every visit.

Vaccine and route (circle type given)	Date given	Site given (LA, RA, LT, RT)	Vaccine lot number	Vaccine manufacturer	VIS date*	Signature or initials of vaccine administrator	Comments
Hepatitis B - 1 ____ mcg (IM)							
Hepatitis B - 2 ____ mcg (IM)							
Hepatitis B - 3 ____ mcg (IM)							
DTaP • DT • Td - 1 (IM)							
DTaP • DT • Td - 2 (IM)							
DTaP • DT • Td - 3 (IM)							
DTaP • DT • Td - 4 (IM)							
DTaP • DT • Td - 5 (IM)							
DTaP/Hib - 4 (IM)							
Td booster (IM)							
Td booster (IM)							
Hib - 1 (IM)							
Hib - 2 (IM)							
Hib - 3 (IM)							
Hib - 4 (IM)							
Hib/Hep B - 1 (IM)							
Hib/Hep B - 2 (IM)							
Hib/Hep B - 3 (IM)							
Polio - 1 (SQ • IM)							
Polio - 2 (SQ • IM)							
Polio - 3 (SQ • IM)							
Polio - 4 (SQ • IM)							
Pneum conj (PCV) - 1 (IM)							
Pneum conj (PCV) - 2 (IM)							
Pneum conj (PCV) - 3 (IM)							
Pneum conj (PCV) - 4 (IM)							
MMR - 1 (SQ)							
MMR - 2 (SQ)							
Varicella - 1 (SQ)							
Varicella - 2 (SQ)							
Hepatitis A - 1 (IM)							
Hepatitis A - 2 (IM)							
Other†							
Other†							
Other†							
Other†							
Other†							

* Each VIS is identified by a date at the bottom. Record the VIS identification date in this column.

† Influenza, pneumococcal polysaccharide (PPV23), meningococcal, and/or Lyme disease vaccines are recommended for certain high-risk children.

Item #P3022 (12/00)

This form is distributed by the Immunization Action Coalition • 1573 Selby Avenue • St. Paul, MN 55104 • (651) 647-9009 • www.immunize.org

Appendix G

Additional Resources

Helpful Resources for You and Your Providers

TELEPHONE NUMBERS:

National Immunization Hotline:

(English) 1-800-232-2522
(Spanish) 1-800-232-0233
(TTY) 1-800-243-7889

FREQUENTLY USED IMMUNIZATION WEBSITES:

National Immunization Program
http://www.cdc.gov/nip

AFIX
http://www.cdc.gov/nip/afix

Vaccines for Children (VFC)
http://www.cdc.gov/nip/vfc

National Partnership for Immunization
http://www.partnersforimmunization.org/

Immunization Action Coalition
http://www.immunize.org/

The Children's Hospital of Philadelphia
http://www.vaccine.chop.edu/

National Network for Immunization Information
http://www.immunizationinfo.org/

List of Continuing Education Credentialing Organizations:

International Association for Continuing Education and Training
http://www.iacet.org/ and
http://www.iacet.org/index2.htm

American Nurses Credentialing Center of American Nurses Association
http://www.ana.org/ancc/reviews.htm

Accreditation Council for Continuing Medical Education
www.accme.org

National Commission for Health Education Credentialing, Inc (CHES)
http://www.nchec.org/newhome.htm
http://www.nchec.org/continuing_education%20map.htm

American Association of Medical Assistants, Inc.
http://www.aama-ntl.org/ed/pprm.html

National Center for Competency Testing – National Certified Medical Office Assistant (NCMOA)
http://www.ncctinc.com/reference/onlineCEU00.htm